

ABSTRACT OF THE DISCLOSURE

A CMOS thin film transistor and a display device using the same the CMOS thin film transistor has improved electrical characteristics, such as, current mobility and threshold voltage.

The CMOS thin film transistor is fabricated such that the direction of active channels of the P-

5 type thin film transistor and the direction of active channels of the N-type thin film transistor are

different from each other,. Primary grain boundaries included in the P-type thin film transistor

are angled such that they are at an angle of about 60 to about 120 ° with respect to an active

channel direction. Primary grain boundaries included in the N-type thin film transistor are

angled such that they are at an angle of about -30° to about 30°. The active channels are formed

10 in polycrystalline silicon.